## ATTACHMENT - CLAIMS LISTING

*This listing of claims will replace all prior versions, and listings, of claims in the application.*

1. (currently amended) Sound-absorbing device which is placed in a sound field in air for absorbing acoustic energy from said sound field at least in a predetermined low-frequency region, the device comprising:

a body containing one or more cavities, said body

including an outer surface ~~of the body~~ with at least a portion thereof in contact with said sound field, ~~and said body~~

having a volume which movable between states where the volume is one of a) ~~being inflatable/extendable~~ inflated and ~~collapsible/~~ collapsed or b) extended and~~compressible~~ compressed, by a variation in a gas pressure therein, in order to change one of an absorption coefficient $\alpha$ or a resonance frequency of said body between a very high value and a very low value substantially lower than the very high value; and

a means for actively varying the gas pressure in ~~a volume in~~ said one or more cavities ~~during the supply of a gas to or removal of the gas from said one or more cavities~~ in order to actively vary at least one of the absorption coefficient $\alpha$ ~~and~~/or the resonance frequency of said body ~~and hence for actively determining the absorption coefficient and/or the frequency region in which maximum absorption takes place~~ between the very high and very low values substantially lower than the very high value.

2. (original) Sound-absorbing device according to claim 1, where said low-frequency region has an upper frequency limit of approximately 200 Hz.

3. (original) Sound-absorbing device according to claim 1, where said low-frequency region is 50 Hz to 125 Hz.

4. (previously presented) Sound-absorbing device according to claim 1, where a material of said body is chosen such that there exists a substantial impedance match between the body and the surrounding sound field, at least in said low-frequency region.

5. (currently amended) Sound-absorbing device according to claim 1, where said gas pressure is ~~supplied to/removed from said at least one cavity~~ varied via a valve provided in a conduit between said at least one cavity and a source of ~~that~~ gas, where the valve is provided with means for remote-controlling of the valve.

6. (currently amended) Sound-absorbing device according to claim 1, where the body is furthermore provided with an attachment ~~means~~ mechanism for engagement with a corresponding attachment ~~means~~ mechanism provided on one or more sound-absorbing devices.

7. (previously presented) Sound-absorbing device according to claim 1, where at least one of said one or more cavities is provided with sound-absorbing material within said cavity.

8. (withdrawn - currently amended) Sound-absorbing device according to claim 1, where at least one of said one or more cavities is provided with one of an internal self-inflating/ or self-expanding ~~means~~ mechanism.

9. (withdrawn- currently amended) Sound-absorbing device according to claim 1, where said body is surrounded by one of an inflatable/ ~~expandable~~ and collapsible/ frame structure or an expandable and compressible frame structure for providing at least one of a sufficient rigidity, ~~and/or the~~ a desired shape ~~and/~~or ~~the~~ a desired depth to said body.

10. (currently amended) Sound-absorbing assembly comprising:

at least one sound-absorbing device ~~according to claim 1, the assembly~~ which is placed in a sound field in air for absorbing acoustic energy from said sound field at least in a predetermined low-frequency region, comprising

a body containing one or more cavities, said body including an outer surface with at least a portion thereof in contact with said sound field, and being movable between states where the body is one of a) inflated and collapsed or b) extended and compressed, by a variation in a gas pressure therein, and

a means for actively varying the gas pressure in said one or more cavities in order to actively vary at least one of the absorption coefficient $\alpha$ or the resonance frequency of said body; and

a ~~support or suspension~~ structure provided with a roller ~~means~~ upon which said at least one sound absorbing device~~s~~ can be wound and a drive ~~means~~ mechanism for rotating said roller~~ means~~.

11. (currently amended) Sound-absorbing assembly according to claim 10 furthermore comprising at least one high-frequency absorbing ~~means~~ device supported on the ~~support or suspension~~ structure on ~~one or more~~ a second roller ~~means~~ upon which said high-frequency absorbing ~~means~~ mechanism can be wound.

12. (currently amended) Sound-absorbing assembly according to claim ~~10~~ 11, wherein the ~~support or suspension~~ structure is formed as a housing for accommodating the low and high-frequency absorbing devices in an inactive state of the assembly.

13. (currently amended) Sound-absorbing assembly according to claim 10, ~~where the assembly furthermore is provided with~~ further comprising a winding means for automatically winding up ~~at least~~ the low-frequency absorbing device ~~in case of fire~~.

14. (previously presented) Sound-absorbing assembly according to claim 11, where said high-frequency absorbing device is a sheet of fabric of a material with sufficient flow resistance to provide high-frequency acoustic absorption.

15. (currently amended) A method for variably absorbing sound from a sound field in air, comprising the steps of:

introducing into the sound field ~~at least one at least~~ a partially resilient body, ~~characterized by~~ the body having

an acoustic mass and a compliance determining a resonance frequency and hence determining an active frequency region for substantial absorption of acoustic energy from said sound field, ~~and~~

an outer surface exhibiting a chosen acoustic resistance, ~~into said sound field,~~ such that said sound field is in contact with at least a portion of ~~an~~ the outer surface ~~of said at least one body,~~ whereby said ~~at least one~~ body absorbs acoustic energy from said sound field, and

a closed volume having a gas pressure and which is movable between states where the volume is one of a) inflated and collapsed or b) extended and compressed, by a variation in a gas pressure therein, in order to change one of an absorption coefficient $\alpha$ or a resonance frequency of said body between a very high value and a very low value substantially lower than the very high value;

actively varying ~~a~~ the gas pressure of the closed volume of said ~~at least one of said bodies~~ body ~~which is/are inflatable/extendable and collapsible/compressible during a supply of a gas to or removal of the gas from said at least body~~, to thereby ~~whereby~~ vary the at least one of the absorption coefficient $\alpha$ ~~and/~~or the resonance frequency of said body ~~is varied and hence actively determining the frequency region in which maximum absorption takes place~~ between the very high and very low values.

16. (currently amended) A method according to claim 15, ~~characterized in that~~ further including the step of choosing the acoustic resistance of ~~those~~ the portions of said ~~one or more bodies~~ body that is/~~are~~ in contact with said sound field ~~is chosen~~ such that a substantial impedance match exists between ~~these~~ portions and the surrounding sound field.

17. (previously presented) A method according to claim 15, where the resonance frequency $f_0$, acoustic resistance ratio μ, maximum absorption coefficient $\alpha_{max}$ and absorption bandwidth $B_r$ are given by

$$f_0 = \frac{c}{2\pi}\sqrt{\frac{\rho}{md}} \qquad (1)$$

$$\mu = \frac{r_1}{r_s} \qquad (2)$$

$$\alpha_{max} = \frac{4\mu}{(1+\mu)^2} \qquad (3)$$

$$\frac{B_r}{f_0} = (1+\mu)\sqrt{\frac{\rho d}{m}} \qquad (4)$$

18. (currently amended) A method for reducing the reverberation time of a room at least in a low-frequency region from a given reverberation time $T_{60}$ to a desired reverberation time $T_{60,S}$ comprising the steps of:

introducing ~~introduction of one or more assemblies according to claim 10~~ into the room a sound-absorbing device which is placed in a sound field in air for absorbing acoustic energy from said sound field at least in a predetermined low-frequency region, the device including

a body containing one or more cavities, said body including an outer surface with at least a portion thereof in contact with said sound field, and being movable between states where the cavities are one of a) inflated and collapsed or b) extended and compressed, by a variation in a gas pressure therein, and

actively varying the gas pressure in said one or more cavities in order to actively vary at least one of the absorption coefficient α or the resonance frequency of said body; and

when variation of the gas pressure is no longer desired, winding up, on a structure provided with a roller, said sound absorbing device with a drive mechanism.

19. (currently amended) A method according to claim 18, where a required total surface area $S_s$ of said ~~one or more bodies~~ body of said ~~one or more assemblies~~ device is determined by the equation

$$\alpha = \frac{55.3V}{cS_S}\left(\frac{1}{T_{60}^S} - \frac{1}{T_{60}}\right) \qquad (5)$$

where α is the absorption coefficient of the absorbing device~~/devices~~, V is the volume of the room and c is the speed of sound.

20. (previously presented) A method according to claim 18, where said reduction of reverberation time predominantly takes place in a low-frequency region determined by a resonance frequency and absorption bandwidth determined where the resonance frequency $f_o$, acoustic resistance ratio μ, maximum absorption coefficient $\alpha_{max}$ and absorption bandwidth $B_r$ are given by

$$f_0 = \frac{c}{2\pi}\sqrt{\frac{\rho}{md}} \qquad (1)$$

$$\mu = \frac{r_l}{r_s} \qquad (2)$$

$$\alpha_{\max} = \frac{4\mu}{(1+\mu)^2} \qquad (3)$$

$$\frac{B_r}{f_0} = (1+\mu)\sqrt{\frac{\rho d}{m}} \qquad (4).$$

21. (currently amended) A system for reducing the reverberation time of a room comprising:

a plurality of sound-absorbing assemblies, ~~according to claim 10,~~ each sound-absorbing assembly including

at least one sound-absorbing device which is placed in a sound field in air for absorbing acoustic energy from said sound field at least in a predetermined low-frequency region, comprising

a body containing one or more cavities, said body including an outer surface with at least a portion thereof in contact with said sound field, and being movable between states where the cavities are one of a) inflated and collapsed or b) extended and compressed, by a variation in a gas pressure therein, and

a means for actively varying the gas pressure in said one or more cavities in order to actively vary at least one of the absorption coefficient $\alpha$ or the resonance frequency of said body;

a structure provided with a roller upon which said at least one sound absorbing device can be wound and a drive mechanism for rotating said roller; and ~~the system furthermore comprising~~

conduits through which the gas pressure can be supplied ~~from~~ via a source to each of said assemblies ~~either individually or in predetermined groups of said assemblies~~ and removed therefrom ~~these~~.

22. (currently amended) A system according to claim 21, wherein said assemblies are provided with valve means for controlling the ~~supply of~~ gas pressure in ~~to/removal of gas from~~ said assemblies.

23. (currently amended) A system according to claim 22,

wherein said valve means are remote controllable, and ~~where the system is furthermore provided with~~

further including a central control device for controlling the ~~degree of inflation/extension~~ gas pressure of said assemblies.

24. (currently amended) A system according to claim 21, ~~where the system further~~more comprises comprising means for measuring the reverberation time of ~~a~~ the room ~~in which the system is installed~~.

25. (currently amended) A system according to claim 21, further~~more~~ comprising data storage means for storing ~~for instance~~ measured reverberation times and ~~various~~ corresponding parameters of the assemblies.

26. (previously presented) A listening room, for instance to be used for the performance of live or recorded music, comprising one or more of said assemblies according to claim 10.

27. (previously presented) The use of sound-absorbing devices according to claim 1 for altering the reverberation time of a room.

28. (previously presented) The use of sound-absorbing assemblies according to claim 10 for altering the reverberation time of a room.

29. (previously presented) The use of the system according to claim 21 for altering the reverberation time of a room.